

# CHICAGO

## Electric Power Tools

### INDUSTRIAL

### 14" CUT-OFF SAW

### Model 01624

**ASSEMBLY and OPERATING INSTRUCTIONS**



3491 Mission Oaks Blvd. / Camarillo, CA 93011

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**SPECIFICATIONS**

Motor:	3-1/2 HP; 15 amps @ 120V, 60 Hz
Rate:	3800 RPM
Wheel:	14", 1" arbor
Capacities:	3" x 8-1/2" (flat); 4" (pipe)
Weight:	40 lbs.

**SAVE THIS MANUAL**

You will need the manual for the safety warnings and cautions, assembly instructions, operating procedures, maintenance procedures, trouble shooting, parts list, and diagram. **Keep your invoice with this manual. Write the invoice number on the inside of the front cover.** Keep both this manual and your invoice in a safe, dry place for future reference.

**READ ALL  
INSTRUCTIONS BEFORE  
ASSEMBLING OR  
OPERATING THIS TOOL**

**SAFETY WARNING & CAUTIONS**

**WARNING:** When using electric tools, machines, or equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury. **READ ALL INSTRUCTIONS BEFORE USING THIS TOOL!**

1. **KEEP WORK AREA CLEAN.** Cluttered areas invite injuries.
2. **OBSERVE WORK AREA CONDITIONS.** Do not use machines or power tools in damp, wet, or poorly lit locations. Don't expose to rain. Keep work area well lit. Do not use electrically powered tools in the presence of flammable gases or liquids.
3. **KEEP CHILDREN AWAY.** Children must never be allowed in the work area. Do not let them handle machines, tools, or extension cords.
4. **STORE IDLE EQUIPMENT.** When not in use, tools must be locked up in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **DO NOT FORCE THE TOOL.** It will do the job better and more safely at the rate for which it was intended. Do not use inappropriate attachments in an attempt to exceed the tool's capacities.
6. **USE THE RIGHT TOOL FOR THE JOB.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. Do not use a tool for a purpose for which it was not intended.
7. **DRESS PROPERLY.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically non-conductive clothes and non-skid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
8. **USE EYE AND EAR PROTECTION.** Always wear ANSI approved safety goggles at other times. Wear a full face shield if you are producing metal filings or wood chips. **Wear and ANSI**

- approved dust mask or respirator when working around metal, wood, and chemical dusts and mists.
9. **DO NOT ABUSE THE POWER CORD.** Do not yank it to disconnect it from the receptacle. Do not carry tools by the cord.
  10. **DO NOT OVERREACH.** Keep proper footing and balance at all times. Do not reach over or across running machines.
  11. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and, if damaged, have them repaired by an authorized technician. The handles must be kept clean, dry, and free from oil and grease at all times.
  12. **DISCONNECT POWER.** Unplug when not in use, before servicing, and when changing accessories.
  13. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make it a habit to check that keys and adjusting wrenches are removed from the tool or machine work surface before plugging it in.
  14. **AVOID UNINTENTIONAL STARTING.** Be sure the switch is in the OFF position when not in use and before plugging in. Do not carry any tool with your finger on the trigger, whether it is plugged in or not.
  15. **OUTDOOR EXTENSIONS CORDS.** When the equipment is operated outdoors, use only extension cords intended for outside use. See chart under "Extension Cords: for the proper AWG rating depending on the length of the cord(s) being used.
  16. **STAY ALERT.** Watch what you are doing and use common sense. Do not operate any tool when you are tired.
  17. **CHECK DAMAGED PARTS.** Before using any tool inspect for damaged parts. Any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if any switch does not turn on and off properly.
  18. **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerator enclosures.
  19. **REPLACEMENT PARTS AND ACCESSORIES.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Harbor Freight Tools. Only use wheels rated greater than 4100 RPM.
  20. **DO NOT OPERATE TOOL IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.** Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.

21. **CHECK WHEEL PRIOR TO USE.** Check for any cracks or other flaws in the wheel that would indicate structural damage. If any are detected, discard immediately. Never start the saw if you or any one else is in line with the wheel.
22. **SECURE WORK.** Use the Vise Clamp Assembly at all times to secure your work.
23. **DO NOT REMOVE THE SAFETY CHAIN.**
24. **FOR METAL CUTTING USE ONLY.** Do not use to cut wood, masonry, magnesium, plastic, or any other non-metallic material. Never mount any wheels not designed for metal cutting operations.
25. **ALLOW STOCK TO COOL AFTER CUTTING.** Do not use fluids to cool metal faster. Allow to cool at a normal rate.

### **GROUNDING INSTRUCTIONS**

1. This machine has a three prong plug. The third prong (round) is the ground. Plug the machine's cord only into three-prong receptacles. Never cut off the round prong. Cutting off the ground will result in a safety hazard and void the warranty.
2. If a three-prong receptacle is not available, you may use an adapter. Extending from the male end of the adapter, you will find a ring connector or wire lead with a ring connector where the ground (round prong) would be. Remove the center screw of the outlet cover and put the screw through the ring connector and back into the hole of the outlet cover. Do not over tighten or you will crack the outlet cover.

### **VOLTAGE WARNING**

Common household current is 110-120 volts. As long as your tool is rated from 110V-120V there will be no complications using this tool with household receptacles. If your tool is rated 220V-240V it has a completely different style of plug and must be used with a 220V-240V receptacle. Never try to plug a 110V-120V tool into a 220V-240V circuit (or vice-versa) or serious complications will arise, including possible injury to the operator. The plugs and receptacle have completely different shapes to prevent this from occurring accidentally. Do not modify your plug in any way. If you have any doubts, call a qualified electrician.

### **EXTENSION CORDS**

Your tool has a three prong plug, therefore you must use a three- prong extension cord. Only use rounded jacket extension cords listed by the Underwriters Laboratories (UL). If you are using the tool outdoors, you must use an extension cord rated for outdoor use. This is signified by the letters "WA" on the jacket.

The extension cord must have a minimum wire size depending on the amperage of the tool and the length of the extension cord. This size is signified by its AWG (American Wire Gauge) rating. The smaller the gauge, the greater the cable's capacity. It does not matter if you are using one cord, or two or more- the total length is what is used to determine the minimum AWG rating. Every cord used must meet the AWG rating. Use the chart below to determine what AWG rating is required for your situation. Cord length is rated in feet.

AMP RATING	TOTAL EXTENSION CORD(S) LENGTH IN FEET								
	25	50	75	100	125	150	175	200	
0-10.0	18	18	16	16	14	14	12	12	A
10.1-13.0	16	16	14	14	14	12	12	12	W
13.1-15	14	14	12	12	12	12	12	—	G
15-18	14	12	12	12	12	12	—	—	

Always inspect extension cords for any damage. If there are any loose, frayed, or exposed wires; damaged insulation; or defective connections, the cord must not be used. Harbor Freight Tools can supply UL listed and outdoor rated cords in multiple AWG rating if needed.

### UNPACKING

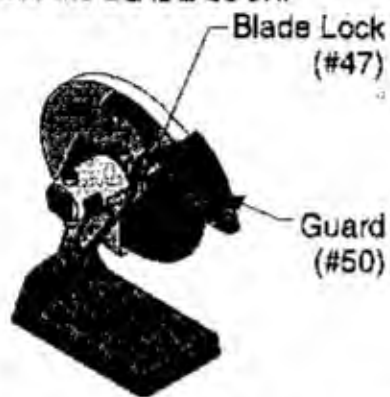
Your Cut-Off Saw comes completely assembled. If any pieces are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual.



## **OPERATION**

### ***Removal & Installation of Wheel***

- Step 1: Disconnect machine from power supply.
- Step 2: Push GUARD (#50) up and out of the way.
- Step 3: Push in BLADE LOCK (#47), as shown in Figure 1, and slowly turn Wheel until it "clicks" into place. Do not release the BLADE LOCK.

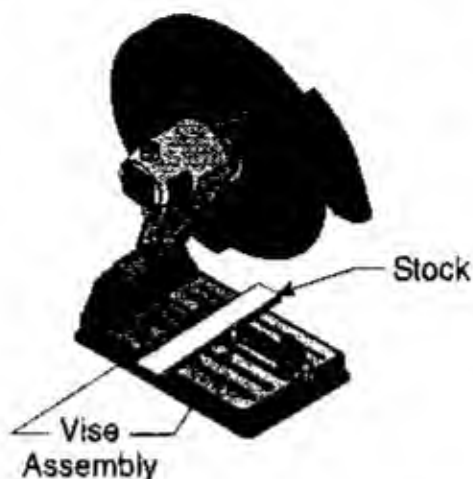


***Figure 1 -- Blade Lock and Guard***

- Step 4: Remove the BOLT (#61), WASHER (#62), and FLANGE WASHER (#58).
- Step 5: Remove the Wheel from the BUSHING (#59).
- Step 6: Replace Wheel, and reassemble unit.
- Step 7: When tightening the BOLT, make sure that the BLADE LOCK is pressed down, and the BOLT is tightened securely, but not over tightened.

### ***Vise Assembly Operation***

Step 1: Your stock should always be centered under the Wheel. Set the vise assembly as shown in Figure 2.



***Figure 2 -- Positioning Stock***

Step 2: Loosen the two BOLTS (#68) as shown in Figure 3 and move the VISE STOP (#69) to the desired position. Tighten the BOLTS.

Step 3: Raise the VISE LEAD SCREW RELEASE HANDLE (#89) and slide the VISE FACE (#67) forward until it contacts the stock.



***Figure 3 -- Operating the Vise Assembly***

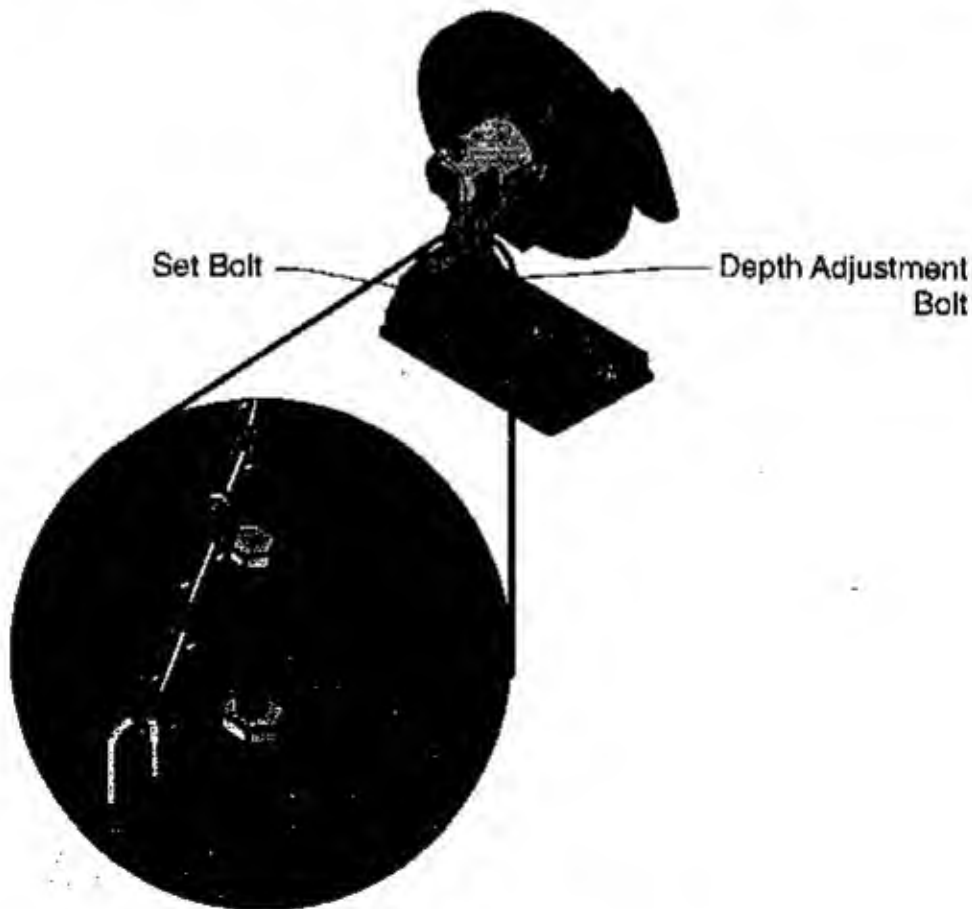
Step 4: Lower the RELEASE HANDLE so that it rests against the LEAD SCREW (#81). Turn the VISE HANDLE (#92) to tightly clamp the stock.

### ***Miter Cuts***

- Step 1: Position stock as detailed in Step 1 of Vise Assembly Operation, above.
- Step 2: Position the VISE STOP (#69) as detailed in Step 2. Before tightening the BOLTS (#68), position the VISE STOP to the desired angle (from  $-30^{\circ}$  to  $+45^{\circ}$ ).
- Step 3: Advance the VISE FACE (#67) as detailed in Steps 3 & 4. The FACE will adjust to the angle of your stock.

### ***Depth of Cut Adjustment***

- Step 1: Loosen the Set Nut on the Depth Adjustment Bolt as shown in Figure 4.
- Step 2: Raise or lower the Depth Adjustment Bolt as necessary to obtain the desired depth of cut.



***Figure 4 -- Adjusting Depth of Cut***



## **MAINTENANCE**

### ***Wheel Alignment***

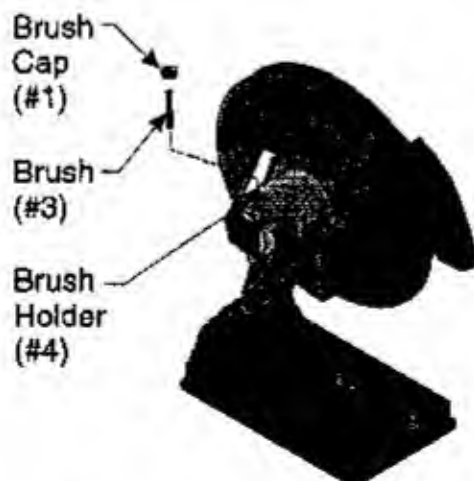
If the Wheel gets out of alignment and begins to contact the BASE (#74), the following procedures must be observed.

- Step 1: Secure the Wheel in the locked down position.
- Step 2: Tilt the unit on its side.
- Step 3: Slightly loosen the four BOLTS (#38) that hold the two PIVOT BLOCKS (#63) in place.
- Step 4: Slide the unit so that the Wheel is centered in the slot of the BASE.
- Step 5: Make sure that the Wheel is at a 90° angle to the BASE using a Try-Square.
- Step 6: Tighten the four BOLTS.

### ***Changing the Brushes***

The BRUSHES (#3) must be replaced when less than 3/8" remains. Both BRUSHES must be replaced at the same time.

- Step 1: Remove the BRUSH CAPS (#1) as shown in Figure 5.
- Step 2: Remove the old BRUSHES from the BRUSH HOLDERS (#4) and replace with new BRUSHES.
- Step 3: Replace the BRUSH CAPS.



***Figure 5 -- Replacing Brush***

***Cleaning***

- Step 1: Use a chip brush between every operation to remove all metal filings from the base and unit. *Never use hands to brush unit!*
- Step 2: Use compressed air (at 10 PSI) to keep the main air vents free from dirt and grease.

**PARTS LIST**

NO.	CODE	DESCRIPTION
1	8bd315017	Brush Cap
2	gb34521	O-Ring
3	5bd573017	Brush
4	8bd112049	Brush Holder
5	gb90744	Screw
6	8bd313016	Brush Cover
7	8bd156075	Washer
8	gb77	Set Screw
9	8bd322005	Nylon Ball
10	8bd313015	End Plate
11	6bd720128	Field Case
12	8bd680456	Nameplate
13	8bdd557023	Terminal
14	Gb818	Screw
15	Gb90743	Screw
16	5bd670164	Field
17	8bd016052	Fan Baffle
18	gb279	Ball Bearing
19	6bd190096	Armature
20	5bd435038	Fan
21	gb279	Ball Bearing
22	8bd282094	Spring
23	8bd551017	Terminal
24	gb90744	Screw
25	gb90744	Screw
26	8bd306063	Switch Handle Cover
27	gb845	Screw
28	8bd490011	Switch
29	8bd306062	Switch Handle
30	gb90744	Screw
31		Chain
32	8bd921004	Screw
33	8bd218037	Spacer
34	gb6175	Nut
35		Attachment Plug
36	8bd777027	Cord Protector
37	8bd641043	Cord
38	gb907414	Bolt
39	8bd253052	Spade Handle
40	gb93	Washer
41	8bd	Main Spring
42	8bd010017	Gear Case
43	gb290	Needle Bearing
44	8bd240154	Gear
45	8bd206080	Spindle
46	8bd003009	Gear Case Cover

NO.	CODE	DESCRIPTION
47	8bd934026	Blade Lock
48	gb90743	Screw
49	8bd472005	Lock Hook
50	5bd300017	Guard
51	8bd300041	Bumper
52	gb41	Nut
53	8bd300042	Spark Deflector
54	gb95	Washer
55	8bd921005	Screw
56	8bd218035	Spacer
57	gb95	Washer
58	8bd128107	Flange Washers
59	8bd218036	Bushing
60	N/A	N/A
61	gb5786	Bolt
62	8bd156072	Washer
63	8bd730006	Pivot Block
64	gb90743	Screw
65	8bd128110d	Vise Stop Plate
66	gb41	Nut
67	8bd128109	Vise Face
68	gb907414	Bolt
69	8bd128108	Vise Stop
70	8bd150033	Steel Foot
71	gb90744	Screw
72	8bd016053	Shield
73	gb894	Retaining Ring
74	8bd150034	Base
75	gb95	Washer
76	8bd128111	Cord Clamp
77	gb95	Washer
78	gb90744	Screw
79	8bd150032	Rubber Foot
80	8bd156073	Saddle
81	8bd235013	Lead Screw
82	8bd253051	Handle Knob
83	8bd253050	Handle Arm
84	gb96	Washer
85	gb90743	Screw
86	gb879	Roll Pin
87	8bd235014	Vise Mount
88	8bd934024	Pin
89	8bd941012	Release Handle
90	gb95	Washer
91	8bd934025	Cleaves Pin
92		Vise Handle

EXPLODED VIEW DRAWING

